

IN THE CLAIMS

1. (currently amended) A method of transmitting contents, which are to be received at a reception side where a portion of contents is previewed while the contents are not accessible for playing other than for a preview purpose, comprising the steps of:

encrypting the contents by a first encryption key;

generating information indicative of an elapsed time of the contents that indicates a relationship between positions on a time axis of the contents representing an amount of time that passes as the contents are played and a time count that accrues as a preview time when the contents are previewed;

encrypting the first encryption key and the information indicative of an elapsed time of the contents by a second encryption key, thereby generating first encrypted information;

encrypting the second encryption key and content-usage control information by a third encryption key, thereby generating second encrypted information, said content-usage control information indicating usage of the contents on the reception side; and

transmitting the encrypted contents, the first encrypted information, and the second encrypted information to the reception side,

wherein the information indicative of the elapsed time of the contents is arranged such that the time count indicates a first time length accrued as the preview time for passage of a predetermined time length on the time axis of the contents at a first portion of the contents, and indicates a second time length accrued as the preview time for passage of the predetermined time length on the time axis of the contents at a second portion of the contents, the first time length being different from the second time length and increasing while the second time length decreases.

2. (currently amended) An apparatus for transmitting contents, which are to be received at a reception side where a portion of contents is previewed while the contents are not accessible for playing other than for a preview purpose, comprising the steps of:

a content encrypting unit which encrypts the contents by a first encryption key;

a content-transmission controlling unit which generates information indicative of an elapsed time of the contents that indicates a relationship between positions on a time axis of the contents representing an amount of time that passes as the contents are played and a time count that accrues as a preview time when the contents are previewed;

a first encrypting unit which encrypts the first encryption key and the information indicative of an elapsed time of the contents by a second encryption key, thereby generating first encrypted information;

a second encrypting unit which encrypts the second encryption key and content-usage control information by a third encryption key, thereby generating second encrypted information, said content-usage control information indicating usage of the contents on the reception side; and

a transmission unit which transmits the encrypted contents, the first encrypted information, and the second encrypted information to the reception side,

wherein the information indicative of the elapsed time of the contents is arranged such that the time count indicates a first time length accrued as the preview time for passage of a predetermined time length on the time axis of the contents at a first portion of the contents, and indicates a second time length accrued as the preview time for passage of the predetermined time length on the time axis of the contents at a second portion of the contents, the first time length being different from the second time length and increasing while the second time length decreases.

3. (original) The apparatus as claimed in claim 2, wherein said content-transmission control unit generates the information indicative of an elapsed time of the contents such that said time count linearly corresponds to said time axis of the contents.

4. (original) The apparatus as claimed in claim 2, wherein said content-transmission control unit generates the information indicative of an elapsed time of the contents such that said time count is not evenly assigned to the said time axis of the contents.

5. (previously presented) An apparatus for transmitting contents, which are to be received at a reception side where a portion of contents is previewed while the contents are not accessible for playing other than for a preview purpose, comprising:

a content encrypting unit which encrypts the contents by a first encryption key;

a content-transmission controlling unit which generates information indicative of an elapsed time of the contents that indicates a relationship between positions on a time axis of the contents representing an amount of time that passes as the contents are played and a time count that accrues as a preview time when the contents are previewed;

a first encrypting unit which encrypts the first encryption key and the information indicative of an elapsed time of the contents by a second encryption key, thereby generating first encrypted information;

a second encrypting unit which encrypts the second encryption key and content-usage control information by a third encryption key, thereby generating second encrypted information, said content-usage control information indicating usage of the contents on the reception side; and

a transmission unit which transmits the encrypted contents, the first encrypted information, and the second encrypted information to the reception side, wherein said content-transmission control unit generates the information indicative of an elapsed time of the contents such that said time count decreases with passage of time on a portion of said time axis of the contents, and increases with passage of time on another portion of said time axis of the contents.

6. (original) The apparatus as claimed in claim 2, wherein a preview-purpose content is attached to the contents at a start of the contents.

7. (original) The apparatus as claimed in claim 2, wherein the content-usage control information includes a purchase flag for indicating whether the contents are purchased or rented on the reception side, said purchase flag being returned from the reception side for confirmation of a payment of a fee for the contents.

8. (original) The apparatus as claimed in claim 2, wherein said transmission unit transmits the second encrypted information separately from the encrypted contents and the first encrypted information in response to a request from the reception side.

9. (currently amended) A machine-readable medium having a program embodied therein for causing a computer to transmit contents, which are to be received at a reception side where a portion of the contents is previewed while the contents are not accessible for playing other than for a preview purpose, said program comprising:

a content encrypting unit which encrypts the contents by a first encryption key;

a content-transmission controlling unit which generates information indicative of an elapsed time of the contents that indicates a relationship between positions on a time axis of the contents representing an amount of time that passes as the contents are played and a time count that accrues as a preview time when the contents are previewed;

a first encrypting unit which encrypts the first encryption key and the information indicative of an elapsed time of the contents by a second encryption key, thereby generating first encrypted information;

a second encrypting unit which encrypts the second encryption key and content-usage control information by a third encryption key, thereby generating second encrypted information, said content-usage control information indicating usage of the contents on the reception side; and

a transmission unit which transmits the encrypted contents, the first encrypted information, and the second encrypted information to the reception side,

wherein the information indicative of the elapsed time of the contents is arranged such that the time count indicates a first time length accrued as the preview time for passage of a predetermined time length on the time axis of the contents at a first portion of the contents, and indicates a second time length accrued as the preview time for passage of the predetermined time length on the time axis of the contents at a second portion of the contents, the first time length being different from the second time length and increasing while the second time length decreases.

10. (currently amended) A method of controlling encrypted contents that are received from a transmission side, wherein a portion of the encrypted contents is previewed while the encrypted contents are not accessible for playing other than for a preview purpose, comprising the steps of:

separating received contents into the encrypted contents, first encrypted information, and second encrypted information, the first encrypted information including a first encryption key and information indicative of an elapsed time of contents as encrypted by a second encryption key, and the second encrypted information including the second encryption key and content-usage control information as encrypted by a third encryption key;

storing the encrypted contents and the first encrypted information in storage;

decoding the second encrypted information by the third encryption key so as to obtain the second encryption key and the content-usage control information;

decoding the first encrypted information stored in the storage by the obtained second encryption key so as to obtain the first encrypted key and the information indicative of an elapsed time of contents;

checking whether a preview of said portion of the encrypted contents is permitted based on the information indicative of an elapsed time of contents and the content-usage control information; and

decoding said portion of the encrypted contents by the first encrypted key in response to a check result that a preview of said portion of the encrypted contents is permitted,

wherein the information indicative of an elapsed time of contents indicates a relationship between positions on a time axis of contents representing an amount of time that passes as the contents are played and a time count that accrues as a preview time when the contents are previewed, and

wherein the information indicative of the elapsed time of the contents is arranged such that the time count indicates a first time length accrued as the preview time for passage of a predetermined time length on the time axis of the contents at a first portion of the contents, and indicates a second time length accrued as the preview time for passage of the predetermined time length on the time axis of the contents at a second portion of the contents, the first time length being different from the second time length and increasing while the second time length decreases.

11. (currently amended) An apparatus for controlling encrypted contents that are received from a transmission side, wherein a portion of the encrypted contents is previewed while the encrypted contents are not accessible for playing other than for a preview purpose, comprising:

a separating unit which separates received contents into the encrypted contents, first encrypted information, and second encrypted information, the first encrypted information including a first encryption key and information indicative of an elapsed time of contents as encrypted by a second encryption key, and the second encrypted information including the second encryption key and content-usage control information as encrypted by a third encryption key;

a content storage unit which stores the encrypted contents and the first encrypted information in storage;

a first decoding unit which decodes the second encrypted information by the third encryption key so as to obtain the second encryption key and the content-usage control information;

a second decoding unit which decodes the first encrypted information stored in the storage by the obtained second encryption key so as to obtain the first encrypted key and the information indicative of an elapsed time of contents;

a check unit which checks whether a preview of said portion of the encrypted contents is permitted based on the information indicative of an elapsed time of contents and the content-usage control information; and

a content decoding unit which decodes said portion of the encrypted contents by the first encrypted key in response to a check result that a preview of said portion of the encrypted contents is permitted,

wherein the information indicative of an elapsed time of contents indicates a relationship between positions on a time axis of contents representing an amount of time that passes as the contents are played and a time count that accrues as a preview time when the contents are previewed, and

wherein the information indicative of the elapsed time of the contents is arranged such that the time count indicates a first time length accrued as the preview time for passage of a predetermined time length on the time axis of the contents at a first portion of the contents, and indicates a second time length accrued as the preview time for passage of the predetermined time length on the time axis of the contents at a second portion of the contents, the first time length being different from the second time length and increasing while the second time length decreases.

12. (original) The apparatus as claimed in claim 11, further comprising:
a playing-time counter unit which counts the time count as said portion of the encrypted contents is decoded for playing; and
a charging unit which charges a fee commensurate with the time count counted by said playing-time counter unit,
wherein said check unit compares the time count with an authorized-preview time length defined in the content-usage control information, and said charging unit refrains from charging a fee until the time count exceeds the authorized-preview time length.
13. (original) The apparatus as claimed in claim 12, wherein said playing-time counter unit counts the time count based on a continuation index that is provided to correspond to a unit time by which said first encryption key changes.
14. (original) The apparatus as claimed in claim 12, wherein said check unit is provided inside a security module that protects information therein from external access such as to prevent reading of the information.
15. (original) The apparatus as claimed in claim 14, wherein said charging unit is provided inside said security module, and generates content-history information by combining the time count counted by the playing-time counter unit with the content-usage control information, said content-history information being paired up with content IDs, which are assigned to respective contents.

16. (original) The apparatus as claimed in claim 15, further comprising an encrypting unit which encrypts the content-history information and the second encryption key by use of an inherent key kept inside said security module if the check unit finds that the time count is smaller than the authorized-preview time length, the content-history information and the second encryption key encrypted by said encrypting unit being stored in said content storage unit.

17. (original) The apparatus as claimed in claim 16, wherein the second encrypted information is stored in said content storage unit together with the encrypted contents after encryption by said encrypting unit.

18. (original) The apparatus as claimed in claim 12, wherein said charging unit sends a notice to the transmission side through a communication channel, said notice indicating whether the encrypted contents are purchased or rented.

19. (original) The apparatus as claimed in claim 12, wherein a request for the second encrypted information is sent to the transmission side via a communication channel if the second encrypted information is not included in the received contents, and a fee for the encrypted contents is charged when said charging unit receives the second encrypted information.

20. (currently amended) A machine-readable record medium having a program embodied therein for causing a computer to control encrypted contents that are received from a transmission side, wherein a portion of the encrypted contents is previewed while the encrypted contents are not accessible for playing other than for a preview purpose, said program comprising:

a separating unit which separates received contents into the encrypted contents, first encrypted information, and second encrypted information, the first encrypted information including a first encryption key and information indicative of an elapsed time of contents as encrypted by a second encryption key, and the second encrypted information including the second encryption key and content-usage control information as encrypted by a third encryption key;

a content storage unit which stores the encrypted contents and the first encrypted information in storage;

a first decoding unit which decodes the second encrypted information by the third encryption key so as to obtain the second encryption key and the content-usage control information;

a second decoding unit which decodes the first encrypted information stored in the storage by the obtained second encryption key so as to obtain the first encrypted key and the information indicative of an elapsed time of contents;

a check unit which checks whether a preview of said portion of the encrypted contents is permitted based on the information indicative of an elapsed time of contents and the content-usage control information; and

a content decoding unit which decodes said portion of the encrypted contents by the first encrypted key in response to a check result that a preview of said portion of the encrypted contents is permitted,

wherein the information indicative of an elapsed time of contents indicates a relationship between positions on a time axis of contents representing an amount of time that passes as the contents are played and a time count that accrues as a preview time when the contents are previewed, and

wherein the information indicative of the elapsed time of the contents is arranged such that the time count indicates a first time length accrued as the preview time for passage of a predetermined time length on the time axis of the contents at a first portion of the contents, and indicates a second time length accrued as the preview time for passage of the predetermined time length on the time axis of the contents at a second portion of the contents, the first time length being different from the second time length and increasing while the second time length decreases.